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20 Aug 1948

SCIENTIFIC

Number 65

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"Neftyanoye Khozyaystvo" (Petroleum Industry) (1) Cards 4, 52, 79-92	Vol XXVI No 5	May 1948
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"Vestnik Svyazi - Elektro-Svyaz'" (Herald of Communications - Electrocommunications) Cards 2, 26-28, 101-106	No 5 (98)	May 1948
"Zhurnal Fizicheskoy Khimii" (Journal of Physical Chemistry) Cards 5-13, 78	Vol XXII No 1	Jan 1948
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"Nihon Iji Shimpō" (Japanese Medical Journal) Cards 53-56	No 1252	21 Apr 1948
"Nihon Iji Shimpō" (Japanese Medical Journal) (2) Cards 57, 58, 62	No 1254	11 May 1948
"Nihon Iji Shimpō" (Japanese Medical Journal) (2) Card 59	No 1255	15 May 1948
"Nihon Iji Shimpō" (Japanese Medical Journal) (2) Cards 60, 61	No 1256	22 May 1948

NOTE

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RESTRICTED	FDB Periodical Abstracts Scientific No 65	RESTRICTED
USSR/Academy of Sciences Engineering "News of Scientific Engineering and Technical Societies" 5 pp "Vest Inzher i Tekhn" No 2 Briefs recent proceedings in the societies: OrgByuro, Odessa Oblast Council for NITO (24 Feb 1948), the Society of Smiths and Stamp Operators, Society of Railroad Men, Society of Multigraph and Editing Personnel, Society of Metal Puddlers, Society of Energetics Personnel, and the Leningrad Council for Scientific Engineering and Technical Societies. FDB 65T1	USSR/Academy of Sciences Radio "Soviet Scientists and Engineers Continuing the Work of A. S. Popov," G. M. Davydov, 3½ pp "Vest Svyazi-Elektro-Svyaz'" No 5 (98) Briefs achievements of V. P. Vologdin, P. A. Osttryakov, M. V. Shuleykin, L. I. Mandel'shtam, A. I. Berg, B. A. Vvedenskiy, A. L. Mints, G. Z. Ayzenberg, H. G. Kruglov, A. A. Magazannik, and V. S. Mel'nikov. FDB 65T2	
USSR/Academy of Sciences Communications - Equipment "The Plenum of the Oblast Committees of the Union of Communications, Dedicated to Rationalization and the Development of Inventions" ½ p "Vest Svyazi - Elektro-Svyaz'" No 4 (97) Discusses Skvortsov's paper submitted to the Kalinin Plenum of the Oblast Committees for Communications. Describes briefly some of the features of this rationalization and development of inventions program. States that the program has paid valuable dividends. FDB 65T3	USSR/Chemistry - Paraffins Chemistry - Molecular Weights "New Equation for the Relation of the Molecular Weight of Naphtha Hydrocarbons and Fractions to Their Specific Gravity and Boiling Point," B. P. Voinov, 2 pp "Neft Khoz" Vol XXVI, No 5 In "Neft Khoz" No 3, 1947, there appeared the analytical relation of the molecular weight of alkanes (paraffin hydrocarbons) to their boiling points at atmospheric pressure. Because the application of this system was limited, a new system has been evolved. LC 65T4	
USSR/Chemistry - Raman Effect Chemistry - Methyl Ether "Calculation of the Frequency and Interpretation of the Vibration Spectra of Multiatomic Molecules," S. I. Ryskina, State Opt Inst, Leningrad, 5 pp "Zhur Fiz Khim" Vol XXII, No 1 Calculates the frequency of molecules of dimethyl ether, and compares with constants calculated from spectrum of other molecules. Obtains good correlation of observed and calculated values. Calculations made on the vibration of methylmercaptan molecules. Submitted 7 Mar 1945. FDB 65T5	USSR/Chemistry - Chains, Chemical Chemistry - Raman Effect "Simplified Method of Calculating the Frequency of Vibration of Carbon Chains," N. M. Gopshteyn, State Opt Inst, Leningrad, 7 pp "Zhur Fiz Khim" Vol XXII, No 1 Series of examples of various types of hydrocarbons to show that it is possible to use approximate method to calculate the vibration of chains with degree of accuracy sufficient for immediate application of observed spectrum lines. It was impossible to compare constants obtained by authors to those FDB 65T6	
USSR/Chemistry - Combustion Chemistry - Conductivity, Thermal "The Theory of the Expansion of a Flame," Ya. B. Zel'dovich, Combustion Sec, Inst of Chem Phys, Acad Sci USSR, Moscow, 21 pp "Zhur Fiz Khim" Vol XXII, No 1 Equations for thermal conductivity and diffusion based on the chemical reactions in flame propagated by explosive mixture. Explains general properties of the distribution of temperature in flame. Method solves boundary value of speeds during expansion and thermal conductivity. Establishes equations to calculate expansion of flames during chain reactions. Submitted 10 May 1947. FDB 65T7	USSR/Chemistry - Chains, Chemical (Contd) obtained by Stepanov. Constants obtained through subject experiments could be used effectively for series of problems. Submitted 7 Mar 1945. FDB 65T6	

RESTRICTED	FDB Periodical Abstracts Scientific No 65	RESTRICTED	
USSR/Chemistry - Adsorbents Chemistry - Carbons, Active	Jan 1948	USSR/Chemistry - Explosives Chemistry - Combustion	Jan 1948
<p>"Adsorption Properties and the Structure of Adsorbents: II, Adsorption in Active Carbon Solutions of Widely Varying Concentrations," O. M. Dzhigit, A. V. Kiselev, M. G. Terekhova, K. D. Shcherbakova; Moscow State U; Lab of Adsorption, Acad Sci USSR; Inst of Phys Chem, Moscow, 11 pp</p> <p>"Zhur Fiz Khim" Vol XXII, No 1</p> <p>Study general types of adsorption isotherms of surface active substances found in solutions of weak adsorbent soluble materials. Adsorption of mixtures of</p>		<p>"Boiling Point and Heat of Evaporation of Some Secondary Explosives," A. F. Belyayev, Inst of Chem Phys, Acad Sci USSR, Moscow, 9 pp</p> <p>"Zhur Fiz Khim" Vol XXII, No 1</p> <p>Boiling point and heat of evaporation are two factors figuring prominently in the theories of combustion, spontaneous combustion, and transfer of combustion to explosion in those explosives that burn in their gaseous state. Boiling point of secondary explosives is not as intense as tempera-</p>	
FDB	65T8	FDB	65T9
USSR/Chemistry - Adsorbents (Contd)	Jan 1948	USSR/Chemistry - Explosives (Contd)	Jan 1948
<p>water and acid or alcohols passes through maximum and decreases. Subdivision and cyclization of the adsorbent molecules decreases the degree to which they can fill the micropores of the carbon being studied. Submitted 14 May 1947.</p>		<p>tures present during combustion. Truton's theories can be applied to most cases of secondary explosives. Submitted 14 May 1947.</p>	
FDB	65T8	FDB	65T9
USSR/Chemistry - Raman Effect Chemistry - Alcohols	Jan 1948	USSR/Chemistry - Alloys, Structure of Chemistry - Systems, Components of Binary	Jan 1948
<p>"Approximate Calculation of the Frequencies of Vibration of Alcohols, Ethers and Amines," N. M. Gopshteyn, State Opt Inst, Leningrad, 8½ pp</p> <p>"Zhur Fiz Khim" Vol XXII, No 1</p> <p>Author previously described method to calculate the vibration of carbon chains. Here he applies same method to molecules containing single bond with atoms of N, and O, e.g., alcohols, ethers, amines and some complex compound series. Submitted 7 Mar 1945.</p>		<p>"Dependence of the Structural Diagram of Binary Alloys Upon Molecular Interaction," D. S. Kamenetskaya, Sci Res Inst of Ferrous Metal, Moscow, 9 pp</p> <p>"Zhur Fiz Khim" Vol XXII, No 1</p> <p>Submits geometric method for analysis of thermodynamic potential calculated according to Becker-Pines' method. Roozeboom's method was used to study various types of structural diagrams and their relation to intermolecular interaction. Submitted 5 May 1947.</p>	
FDB	65T10	FDB	65T11
USSR/Chemistry - Alloys, Structure of Chemistry - Systems, Components of Binary	Jan 1948	USSR/Chemistry - Detonation Chemistry - Explosives	Jan 1948
<p>"The Influence of the Molecular Interaction on the Phase Equilibrium in Binary Systems," V. I. Danilov, D. S. Kamenetskaya, Sci Res Inst of Ferrous Metal, Moscow, 11½ pp</p> <p>"Zhur Fiz Khim" Vol XXII, No 1</p> <p>Study dependence of basic types of structural diagrams on molecular bonds. Obtain equilibrium equations for binary two-phase systems. Analyze these equations. Based on this, it is possible to come to the conclusion that the type of diagram representing the struc-</p>		<p>"Boundary Diameters of a Stable Detonation of a Mixture of Hydrogen Peroxide With Methyl Alcohol and Perchloric Acid With Ethyl Alcohol," R. Kh. Kurbangalina, Inst of Chem Phys, Acad Sci USSR, Moscow, 4 pp</p> <p>"Zhur Fiz Khim" Vol XXII, No 1</p> <p>Some of the data obtained for hydrogen peroxides and methyl alcohol, containing 16% water: Established the presence of two groups of speeds of detonation. There is rapid transition from slow</p>	
FDB	65T12	FDB	65T13

RESTRICTED	FDB Periodical Abstracts Scientific No 65	RESTRICTED
USSR/Chemistry - Alloys, Structure of (Contd)	Jan 1948	USSR/Chemistry - Detonation (Contd) Jan 1948
ture of binary systems conforms to that showing the binding energy of single and multiple molecules in the two phases. Explains simple type of structural diagram. Submitted 5 May 1947.		to high speed. Found the boundary diameters of detonation for both speeds. Conducted measurements of both speeds. Submitted 6 May 1947.
FDB	65T12	FDB
USSR/Chemistry - Acetonitrile Mar 1948 Chemistry - Potential, Electric		USSR/Chemistry - Adsorption Mar 1948 Chemistry - Adsorbents
"Electrode Potentials in Acetonitrile," V. A. Plaskov, Lab of Anhydrous Solutions, Physicochem Inst imeni Karpov, Moscow, 10½ pp		"Adsorption From Solutions on Porous Adsorbents," G. F. Lesokhina, K. A. Gol'bert, A. A. Zhukovitskiy, Physicochem Inst imeni Karpov, Moscow, 14½ pp
"Zhur Fiz Khim" Vol XXII, No 3		"Zhur Fiz Khim" Vol XXII, No 3
Acetonitrile is solution with indefinite fundamental character and tendency to combine with the ions of heavy metals (copper, silver, mercury). The electrode potentials of all alkali metals in acetonitrile, as in all other solutions tested, in comparison to water, remain practically unchanged. In the case of		Examines adsorption from solutions of benzol and carbon tetrachloride on seven adsorbents, and adsorption from benzol solutions on three adsorbents. Gives figures on maximum effective adsorption. Hypothesis on negative deviations from Raoult's law permits accurate plotting of the curve of effective adsorption for certain cases. Submitted 23 Jun 1947.
FDB	65T14	FDB
USSR/Chemistry - Acetonitrile (Contd) Mar 1948		USSR/Chemistry - Evaporation Mar 1948 Chemistry - Ammonia
number of metals there was observed displacement of potential to the positive side, generally coinciding with decrease in solubility of the salts of these metals, and indicating some reduction of energy in the solvation of the corresponding ions. Submitted 23 Jun 1947.		"The Effect of Monomolecular Layers on the Speed of Evaporation of Solutions," M. Tobvin, Ye. Shlosberg, Chem Sec, Inst of Hydrobiol, Acad Sci Ukrainian SSR, Kiev, 7 pp
		"Zhur Fiz Khim" Vol XXII, No 3
		Study kinetics of the evaporation of aqueous solutions of ammonia in current of air. Investigate the effect of films of substances lowering surface tension on the speed of evaporation of aqueous solutions of ammonia, and study the relation of evapora-
FDB	65T14	FDB
USSR/Chemistry - Styrene, Polymerized Mar 1948 Chemistry - Films, Stretching of		USSR/Chemistry - Evaporation (Contd) Mar 1948
"An Optical Method for the Study of Processes Occurring During the Stretching of Films of Polystyrene, and Determination of the Photoelastic Constant at a Temperature Interval From 12 to 140 Degrees Centigrade," O. N. Trapeznikova, Phys Inst, Leningrad State U, 14 pp		tion speed to concentration of the solution. Tabulate results of all these experiments. Submitted 31 Jan 1947.
"Zhur Fiz Khim" Vol XXII, No 3		
Briefs the properties and molecular structure of polystyrene. Describes with the aid of diagram the procedure followed in the experiment, and tabulates and		
FDB	65T17	FDB
		65T16

RESTRICTED	FDB Periodical Abstracts Scientific No 65	RESTRICTED	
USSR/Chemistry - Styrene, Polymerized (Contd)	Mar 1948	USSR/Chemistry - Amyl Alcohol Chemistry - Salting Out	Mar 1948
analyzes results of the measurements made. Observes that double refraction has both positive and negative effects on polystyrene. Submitted 16 Feb 1947.		"The Effect of Electrolytes on the Salting Out of Amyl Alcohol," P. I. Lebed', Lab of Phys, Gor'kiy Pedagogical Inst, 6½ pp	
"Zhur Fiz Khim" Vol XXII, No 3		Object of the work conducted: Study of effect of various electrolytes on the extraction of amyl alcohol from aqueous solutions at various temperatures and chemical potentials. Submitted 18 Jun 1947.	
FDB	65T17	FDB	65T18
USSR/Chemistry - Phenol, Spectrum of Chemistry - Spectra	Mar 1948	USSR/Chemistry - Resonance, Energy of Chemistry - Valency	Mar 1948
"Application of the Method of Differential Spectra in the Near Infrared Field for the Detection of Intermolecular Interaction in Several Aromatic Compounds," N. G. Yaroslavskiy, State Ord of Lenin Opt Inst, Leningrad, 9 pp		"Quantitative Conformity of Methods of Molecular Orbits and Valence Structures," M. Ye. Dyatkina, Physicochem Inst imeni Karpov, Moscow, 13 pp	
"Zhur Fiz Khim" Vol XXII, No 3		"Zhur Fiz Khim" Vol XXII, No 3	
Studies intermolecular interaction of aniline, phenol and their compounds in various solutions at various concentrations and temperatures by means of differential infrared spectra. Reproduces and analyzes spectrograms for the various solutions. Submitted 11 Apr 1947.		Compares the energies of resonance calculated according to the methods of molecular orbits and valence structures. Submitted 10 Jun 1947.	
FDB	65T19	FDB	65T20
USSR/Chemistry - Boric Acid, Esters of Chemistry - Parachors	Mar 1948	USSR/Chemistry - Catalysts Chemistry - Crystals, Ions in	Mar 1948
"Parachors and Structure of the Esters of Boric Acid," B. A. Arbuzov, V. S. Vinogradova, Chem Sci Res Inst, Kazan State U, 6 pp		"The Electronic Theory of the Promotion and Poisoning of Ionic Catalysts," F. F. Vol'kenshteyn, Inst of Phys Chem, Acad Sci USSR, 20 pp	
"Zhur Fiz Khim" Vol XXII, No 3		"Zhur Fiz Khim" Vol XXII, No 3	
Measure parachors of six esters of boric acid. Compare these values with values calculated by the Gilling "group values" method. Variation between the two does not exceed 0.5%. Make conclusions on the structure of boric acid esters on the basis of the parachor findings. Submitted 16 Apr 1947.		Observes heterogeneous reaction of type $A_2 + B_2 \rightarrow 2AB$ on the surface of ionic crystal. Assumes that dissociation of the adsorbed molecules A_2 and B_2 into atoms represents intermediate stage in the reaction. Studies the electron movement of the dissociation of the adsorbed molecules, during	
FDB	65T21	FDB	65T22
USSR/Chemistry - Conductivity, Thermal Chemistry - Viscosity	Mar 1948	USSR/Chemistry - Catalysts (Contd)	Mar 1948
"Several Invariant Quantities in the Theory of Heat Conductivity and the Viscosity of Liquids," A. A. Predvoditelev, Inst of Phys, Moscow State U, 10 pp		which the dissociation occurs as result of the interaction of the molecule with the electrons and gaps in the surface planes of the lattice. Submitted 27 Jun 1947.	
"Zhur Fiz Khim" Vol XXII, No 3			
Selects most suitable form of solid and gasiform matter. Subjects this form to treatment with the aid of statistical physics processes to investigate any functional relation between any parameters characteristic of matter. In view of the difficulty of complete solution of almost all of the problems, various			
FDB	65T23	FDB	65T22

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USSR/Chemistry - Conductivity, Thermal (Contd) Mar 1948	USSR/Chemistry - Cadmium Amalgam Chemistry - Mercury Mar 1948	
limiting suppositions are made in the process of calculation. Covers the fundamental principle of temperature conductivity; adiabatic invariants and the criteria of mechanical comparison; two principles concerning the heat conductivity of liquids. Submitted 3 Jun 1947.	"Contact Difference of Potentials Between Mercury and Cadmium Amalgam," M. Smirnov, Lab of Electrochem, Inst of Chem and Metal, Ural Affiliate, Acad Sci USSR, Sverdlovsk, 2 pp	
"Zhur Fiz Khim" Vol XXII, No 3		
Describes experiment substantiating theory that the difference in potentials which remains between the metals at the maximum quantities of electrocapillary curves must be considered as quantity corresponding to the contact difference of potentials between metals. Submitted 26 Mar 1947.		
FDB 65T23	FDB 65T24	
USSR/Chemistry - Mercury Medicine - Ointments Apr 1948	USSR/Communications Radio Telephone Cables, Radio May 1948	
"The Protective Properties of the Fat Layer in Mercury Ointment," A. I. Proshina, Sanitation Bacteriol Lab of Proletarsk Rayon; L. A. Minkyits, "KhimFarm" Plant No 9 of GlavLekPreparatProm, 1/2 p	"Radio Wire Transfer Layout for Intradistrict Radio Communications," O. S. Podberezskiy, Engr, 2 pp	
"Gig i San" No 4	"Vest Svyazi - Elektro-Svyaz'" No 5 (98)	
There has been a widely accepted belief that mercury in emulsion with fats will not evaporate. Present data collected at Plant No 9, which disproves this statement.	Describes the wiring scheme for the transfer point where trunk-line wires for radio telephonic communications carried on four-cable system are changed to two-line intradistrict telephone system. Diagram of basic system with description of its operation.	
FDB 65T25	FDB 65T26	
USSR/Communications Radio Stations May 1948	USSR/Communications Radio Telegraph May 1948	
"How We Achieved Improvements in Radio Communications," I. V. Pimenov, Chief, Alma-Ata Radio Communications Control, 1 p	"Transfer of Radio Telegraphic Apparatus From the Jurisdiction of Radio Communication and Radio Centers to Telegraph" 1/4 p	
"Vest Svyazi - Elektro-Svyaz'" No 5 (98)	"Vest Svyazi - Elektro-Svyaz'" No 5 (98)	
Describes briefly the various work done at the Alma-Ata radio communications control office to improve the standards of operation of radio stations under its jurisdiction.	In 1944 there was organizational change whereby all radio telegraphic apparatus were placed under the jurisdiction of Radio Communications and Radio Centers. This was done to improve the performance of radio channels. In recent years, however, there has been great increase in the radio telephone	
FDB 65T27	FDB 65T28	
USSR/Communications Telegraphy Apr 1948	USSR/Communications (Contd) May 1948	
"Let Us Introduce Order Into the Work of the Khar'kov and Rostov-on-the-Don Telegraph Departments," L. I. Vladimirov, 1 1/2 pp	network, and thus again for purposes of improving performance, radio telegraphic apparatus have been returned to the jurisdiction of Telegraph.	
"Vest Svyazi - Elektro-Svyaz'" No 4 (97)		
Decree No 75 of the Ministry of Communications has as its objective the increase in the performance quality of communications lines. Actual operation and results of this decree can be seen in the results achieved at the Khar'kov and Rostov Telegraph Departments. Briefs improvements accomplished.		
FDB 65T29	FDB 65T28	

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USSR/Communications Telephony Efficiency, Industrial	Apr 1948	USSR/Communications - Equipment Efficiency, Industrial Apr 1948
"For Pre-Term Fulfillment of the Five-Year Plan" $\frac{1}{4}$ p		"Losses in the ATS, and Their Control," N. M. Pominov, Engr, 1 p
"Vest Svyazi - Elektro-Svyaz'" No 4 (97)		"Vest Svyazi - Elektro-Svyaz'" No 4 (97)
Describes briefly some of the measures adopted by the Moscow municipal telephone network that should lead to fulfillment of the present Five-Year Plan before schedule.		Andrey Yakushin of the Second Moscow Watch Works developed method for industrial economy that should have great significance for increasing the efficiency of ATS apparatus. Describes economy means for controlling traffic over wires by eliminating much unnecessary traffic.
FDB	65T30	FDB
65T30		65T31
USSR/Communications Relays, Telephone Telephones - Apparatus	Apr 1948	USSR/Communications Telephones - Control Telephones - Switchboards Apr 1948
"The Choice of a System for Cooling Tubes in the Output Stages of Wired Broadcasting Stations," N. N. Pavlov, I. A. Shamshin, Engineers, 4 pp		"Control Panel for Pay Telephones," I. Ye. Savonin, Engr, 2 $\frac{1}{2}$ pp
"Vest Svyazi - Elektro-Svyaz'" No 4 (97)		"Vest Svyazi - Elektro-Svyaz'" No 4 (97)
Three-ring (bell) telephone system for large cities requires powerful booster stations. Gives methods to determine the number of booster stations required for any given municipal network. Much interest is displayed in methods for proper cooling of the tubes of large booster stations. Briefly describes some of the methods used for such cooling.		Recommends system for control panel of pay telephone network that will permit rapid determination of points of breakdown. Describes recommended control panel; front-view photo of panel.
FDB	65T32	FDB
65T32		65T33
USSR/Communications Telegraphy	Apr 1948	USSR/Communications Telephony Cables, Telephone Apr 1948
"A Good Beginning for Large-Scale Telegraph Operations in the Country" $1\frac{1}{4}$ pp		"Single-Channel Apparatus for High-Frequency Telephony," V. G. Chernykh, Engr, 3 $\frac{1}{4}$ pp
"Vest Svyazi - Elektro-Svyaz'" No 4 (97)		"Vest Svyazi - Elektro-Svyaz'" No 4 (97)
Discusses the exchange of delegations from various telegraph regions to study the operation of the other telegraph regions in order to facilitate and improve coordination between the various telegraph regions. Exchange system was started by the Ukraine telegraph region when delegation was sent to Leningrad.		Single-channel high-frequency systems can be used with steel as well as copper wire. Copper wire, however, will carry impulses farther than will steel wire under below-freezing temperature conditions. Briefly describes the operation of single-channel systems.
FDB	65T34	FDB
65T34		65T35
USSR/Communications Relays, Telephone Telephone Lines	Apr 1948	USSR/Communications Telephony Telephones - Apparatus Apr 1948
"Operational Organization of a Booster Point," I. Ye. Bogdanov, Chief of a Booster Point, 2 pp		"The Installation of High-Frequency Telephone Apparatus in Interblast Communications," G. L. Polyakov, Chief Engr, Smolensk Oblast Adm, Ministry of Communications, 1 p
"Vest Svyazi - Elektro-Svyaz'" No 4 (97)		"Vest Svyazi - Elektro-Svyaz'" No 4 (97)
Training of personnel to operate booster points on long transcontinental telephone lines is one of the prime requisites for improving performance of the whole network. Describes the experiences of one booster station along transcontinental line using 12-channel system of communications. Training of personnel and proper organization of work are two important factors in efficient performance of booster points.		Smolensk Oblast was hard hit by the Fascist invaders. As soon as the victorious Soviet Army drove out the enemy, communications personnel stepped in and began to rebuild the destroyed networks. Briefly describes some of the repair and recon-
FDB	65T36	FDB
65T36		65T37

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USSR/Electricity Heating, Industrial Plastics, Heating "Use of High Frequencies for Preliminary Heating of Plastics During Compression," V. I. Kalitvyanskiy, Candidate Tech Sci; V. M. Degtev, Engr, 5 pp "Prom Energet" No 3 Authors determined that great technical economies could be achieved by means of rapid heating of plastics to temperatures at which they could be worked. Basically the plastic is heated to 120-140° by means of dielectric heating, after which it is rapidly transferred to the molding tables. Describes the operation and performance of system. FDB 65T38	USSR/Communications (Contd) struction work done. One of the greatest advancements was the installation of high-frequency telephone networks for interblast communications. FDB 65T37	
USSR/Electricity Generators Electrical Equipment "Reconstruction of a Rotor and Repair of a Stator of a Generator of the AEG Firm Under Factory Conditions," N. F. Shishkin, Engr, 2 pp "Prom Energet" No 3 Describes details of subject operation. Gives reasons for the breakdown, the effect on the generator, and brief description of repairs. FDB 65T39	USSR/Electricity Electroplating - Equipment Regulators "Automatic Machines for Electroplating Processes," N. I. Dokin, Engr, Mem, Presidium, Committee on Galvanostegy, VSNITO, 7 pp "Vest Inzher i Tekhn" No 2 Describes construction of these machines, automatic machines with movable anodes, the power supply, the electrical circuit, control mechanisms, ventilation, and methods to evaluate and check the performance of the electroplating machines. FDB 65T40	
USSR/Engineering Pressure, Earth Structural Analysis "Concerning Engineer N. V. Bulgakov's 'New Method of Determining the Pressure of Soil on a Bulkhead'," V. A. Meyster, Engr, 2½ pp "Vest Inzher i Tekhn" No 2 Meyster states that so-called "new method" is not new at all. Gives various references to show that method has been known for some time. FDB 65T41	USSR/Engineering Efficiency, Industrial "Scientific Engineering and Technical Society in the Struggle to Complete the Five-Year Plan in Four Years" 2 pp "Vest Inzher i Tekhn" No 2 Various innovations and plans adopted to make possible the completion of the present Five-Year Plan in four years. FDB 65T42	
USSR/Engineering Mechanics Machines "Priority in Soviet Theory of Mechanics and Machines," Docent G. Ya. Berger, Candidate Tech Sci, 3½ pp "Vest Inzher i Tekhn" No 2 Historical recapitulation of some of the Soviet achievements in the field of mechanics and machinery that have given this field first place in the competition to improve the lot of the Soviet people. FDB 65T43	USSR/Engineering Terminology "For Clarity of Russian Technical Language," G. I. Kononenko, 2 pp "Vest Inzher i Tekhn" No 2 Points out that the Soviet scientific language is replete with terms that are not only irrelevant and inaccurate, but not Russian. Makes attempt to dispense with foreign importations and substitute purely Russian words for them. FDB 65T44	

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USSR/Engineering Welding - Electrodes "Tsm-7 Electrodes," Prof A. A. Alov, Dr Tech Sci, 4½ pp "Avtogen Delo" No 3 General introduction to deficiencies of electrodes, selection of components and status of electrode coat- ing, results of tests conducted on various electrodes, and some details that must be taken into account when using the Tsm-7 electrode. FDB 65T45	USSR/Engineering Welding - Electrodes Welding, Arc "Use of the Tsm-7 Electrodes in Rapid Manual Weld- ing," F.I. Pashukanis, Engr, Welding Sec, TsNIITMASH, 6 pp "Avtogen Delo" No 3 Discusses comparative characteristics of several contemporary electrodes, results of practical experience and theoretical ideas on seams and the productivity of manual welding; effect of the speed of an arc on the welding process, effect of the FDB 65T46	
USSR/Engineering Welding, Autogenous Welding, Arc "Automatic Welding With a Three-Phase Arc," G. P. Mikhaylov, Engr, 4 pp "Avtogen Delo" No 3 Results of tests using various systems to connect the transformer, various positions of the electrodes, and the use of two or three arcs simultaneously. Also studies results of welding with various focuses of the welding arcs. Theoretically studies the com- bustion process in arcs. FDB 65T47	USSR/Engineering (Contd) Mar 1948 diameter of the electrode and intensity of welding current on the amount of production, and the porosity of the metal seam as factor influencing the quality of the seams. FDB 65T46	
USSR/Engineering Welding Joints, Welded "Classification of Welded Joints of Large Dimensions (up to 35 mm)," V. I. Mel'nik, R. G. Shneyderov, Engineers, 1½ pp "Avtogen Delo" No 3 Set up method to identify various types of thick welded joints on the basis of the shape of the butt ends of the two pieces being welded together. FDB 65T48	USSR/Engineering Welding Boilers "Restoration of Sulfate-Cellulose Boilers of 125 - 140 Cubic-Meter Capacity, by Welding," Ye. D. Lonskiy, Aspirant to Chair of Welding, MVTU imeni Bauman, 3 pp "Avtogen Delo" No 3 This method for welded repairs to subject boilers was developed in 1944. Author developed the tech- nology of the welding process, and it was so suc- cessful that these boilers have been operating for two years with no trouble. FDB 65T49	
USSR/Engineering Welding, Spot Welding - Electrodes "Electrode Arrangements for T-Shaped Welding on Spot- Welding Apparatus," G. R. Dobis, Engr, 2½ pp "Avtogen Delo" No 3 Emphasizes great saving of weight in the application of spot welding to the welding of T-shaped parts. Describes equipment setup necessary for this opera- tion. FDB 65T50	USSR/Engineering Boilers "New Vertical Transportable Boiler VTKB," Z. L. Berlin, Engr, Moscow Boiler-Mech Works, MPP, USSR, 3½ pp "Prom Energet" No 3 Boilers have 1-ton capacity of steam per hour. Can be used at large construction sites, and in power stations generating 50-70 kw. Briefly describes the operation of boilers, and briefly notes some of the peculiarities accompanying their care and operation. FDB 65T51	

RESTRICTED	FDB Periodical Abstracts Scientific No 65	RESTRICTED
USSR/Geology Tectonics "The Propagation of Disturbances in a Stratum," V. N. Shchelkachev, 2 pp "Neft Khoz" Vol XXVI, No 5 Author refers to article by E. B. Chekalyuk. Disagrees on several points made by Chekalyuk and presents entirely different method to study the distribution of stratal pressure that allows tracing beyond the effective radius of an interstice. LC 65T52	JAPAN/Medicine - Eczema Medicine - Skin Diseases "Effectiveness of Xanthogenic Plaster for Dermatitis," Tsuchiya Fumio, Obori Tatsuji, Konishi Kikuji, 3 pp "Nihon Iji Shimpō" No 1252 Report clinical cases of scabies, acute eczema, chronic eczema, infantile eczema, seborrhea and favus cases treated with Xanthogenic plasters. Report results obtained from treating acne vulgaris. Give chemical formula of Bisethylxanthogen. FDB 65T53	
JAPAN/Medicine - Hygiene and Sanitation Medicine - Dietetics "Scope of Hygienics and Hygienic Methods, Part II," Harashima Susumu, 3 pp "Nihon Iji Shimpō" No 1252 Author includes environmental hygiene, dietetics, epidemiology, environmental hygiene, science of physical strength, morphology, human physiology, and eugenics in the scope of hygienics. FDB 65T54	JAPAN/Medicine - Sulfanilimide and Derivatives Medicine - Pharmacology "A Guide in the Use of Sulfa Drugs," Editorial, 2 pp "Nihon Iji Shimpō" No 1252 Briefly mentions doses of sulfonamides, sulfa-pyridine, sulfathiazole, sulfadiazine, and sulfa-guanidine. FDB 65T55	
JAPAN/Medicine - Sputum, Examination Medicine - Bacteria "Examination of Sputum Specimens, Part VII," Shibata Toshio, 2 pp "Nihon Iji Shimpō" No 1252 Gives microscopic examination for B. pyocyaneus, Pasteurella pestis, Corynebacterium diphtheriae and B. fusiformis. FDB 65T56	JAPAN/Medicine - Proteins Medicine - Vitamins "Impressions of Japanese Biochemistry Association," Miyamoto Tama, 2 pp "Nihon Iji Shimpō" No 1254 Author gives his impressions of the Convention of the Japanese Biochemistry Association held at Tokyo Imperial University School of Medicine. Briefly mentions the work of Mizushima on the problems of protein, Aratani on the order of proteidogenous transformation, Hirai on serum albumin and Shimazono on vitamin problems. ST 65T57	
JAPAN/Medicine - Infectious Diseases Medicine - Societies, Medical "The General Meeting of the Japanese Society of Infectious Diseases," Mihashi Chiaki, 2 pp "Nihon Iji Shimpō" No 1254 This was the 22d Convention of the Japanese Society of Infectious Diseases. Reports on leptospirosis, plague, exanthematous typhus, and malaria were given at meeting. Among the speakers were Futaki, Kibo, Nagasawa, Tokawa, Kitaoka, Hamada, Hiraishi, etc. ST 65T58	JAPAN/Medicine - Hematology Medicine - Societies, Medical "A Short Article on the Tenth Convention of the Japanese Society of Hematology," Nakao Yoshihisa, 2 pp "Nihon Iji Shimpō" No 1255 Briefly reports the 10th Convention of the Japanese Society of Hematology held at Tokyo Medical College 31 Mar-1 Apr 1948. About 83 speakers were heard. ST 65T59	

RESTRICTED	FDB Periodical Abstracts Scientific No 65	RESTRICTED	
JAPAN/Medicine - Cancer Medicine - Societies, Medical	22 May 1948	JAPAN/Medicine - Pharmacology Medicine - Digitalis and Digitalis Preparations	22 May 1948
"After the Adjournment of the Japanese Cancer Society," Ota Kunio, 2 pp		"Impressions of the Twenty-First Convention of the Japanese Society of Pharmacology," Prof Hara Saburo, 2 pp	
"Nihon Iji Shimpō" No 1256		"Nihon Iji Shimpō" No 1256	
Close to 90 papers were delivered at the 7th Convention of the Japanese Cancer Society held at Kyoto University Medical College 7 Apr 1948. Special mention was made of the Nagasaki-type Ascitogenous Sarcoma which is the only case of its kind in Japan.		Some 88 subjects were heard at Convention of the Japanese Society of Pharmacology held at Kyoto Municipal Medical College 5-6 Apr 1948. Emphasis was placed on digitalis, vermifuge and ergot as subjects of joint-research work.	
ST	65T60	ST	65T61
JAPAN/Medicine - Malaria Medicine - Mosquitoes	11 May 1948	USSR/Medicine - Gynecology Medicine - Hormones, Sex	Mar/Apr 1948
"Postwar Malaria," Sawada Toichiro, 4 pp		"Preparations of Female Sex Hormones and Their Use in Gynecology," A. P. Preobrazhenskiy, Inst of Obstetrics and Gynecol, Acad Med Sci USSR, 8 pp	
"Nihon Iji Shimpō" No 1254		"Akusher i Ginekol" No 2	
Estimated number of recurrent cases in 1946 was more than 400,000. Expected to be reduced to more normal figure in several years. Reasons for this expected decline: 1) climatical influence; 2) decline of mosquitoes as agents; 3) malaria is not endemic in Japan and rest and quiet are enough to bring about recovery; 4) proper therapeutics are available for patients.		Describes the preparation of estrogenic substances. Discusses the principles governing the use of sex hormones in gynecology, especially in such diseases as hypogenitalism, hypofunction of the ovaries, dysmenorrhea, hemorrhagic metropathy, in climacteric and castration, and for purposes of increasing	
ST	65T62	FDB	65T63
USSR/Medicine - Blood, Glutathione Medicine - Gynecology	Mar/Apr 1948	USSR/Medicine - Gynecology (Contd)	Mar/Apr 1948
"Blood Glutathione and Oxidation-Reduction Processes in Gynecologic Cases," F. D. Aniskova, Obstetrics and Gynecol Clinic, First Moscow Med Inst, 5 pp		lactation. Dir of Inst of Obstetrics and Gynecol: Prof M. S. Malinovskiy, Active Mem, Acad Sci USSR.	
"Akusher i Ginekol" No 2			
Data obtained as result of studies conducted to determine the value of blood glutathione as biological mirror that reflected the over-all character of the oxidizing process going on in the test animal. Dir of Obstetrics and Gynecol Clinic: Prof Ye. I. Kvater.			
FDB	65T64	FDB	65T63
USSR/Medicine - Hygiene and Sanitation Medicine - Public Health	Apr 1948	USSR/Medicine - Hygiene and Sanitation, Industrial Medicine - Public Health	Apr 1948
"Basic Tasks in Improving Sanitation Conditions in the Towns and Villages of the Belorussian SSR in the Course of Rebuilding and Reconstruction," Prof Z. K. Mogilevchik, Chair of Hygiene, Minsk Med Inst, 2 pp		"New Sanitation Norms and Directions for Planning Industrial Enterprises," R. G. Leytes, Inst of Industrial Hygiene and Occupational Diseases, Acad Med Sci USSR; Chair of Industrial Hygiene, Cent Inst for Advancement of Doctors, 7½ pp	
"Gig i San" No 4		"Gig i San" No 4	
Describes various resolutions that have been passed on health measures for towns being rebuilt. Discusses basic problems in Belorussian SSR and methods being employed to overcome these difficulties.		Various measures were put into effect to improve the health of the Soviet worker. Tabulates the approved concentrations of chemical and organic poisons allowed to be present in the atmosphere of	
FDB	65T65	FDB	65T66

RESTRICTED	FDB Periodical Abstracts Scientific No 65	RESTRICTED
USSR/Medicine - Surgery Medicine - Air "Air Supply During Surgical Operations and Measures for Improvement," Prof A. I. Shafir, Docent P. A. Kouzov, Chair of Gen Hygiene, Mil Med Acad, 6 pp "Gig i San" No 4 Result of studies conducted in two large operation-theater blocks to determine the purity of air. Suggests various measures adopted to further purify air being supplied.	Apr 1948 <	

RESTRICTED	FDB Periodical Abstracts Scientific No 65	RESTRICTED
USSR/Medicine - Hygiene and Sanitation, Apr 1948 Industrial Medicine - Dust "A New-Model Electrostatic Dust Remover," D. Ye. Rozenberg, 2 pp "Gig 1 San" No 4 Presents data on the performance of new-model electrostatic dust precipitator that is able to precipitate up to 97% of the dust contained in air. This was developed at NioGaz laboratories of the All-Union Trust "GazoOchistka." FDB 65T72	USSR/Medicine - Malaria, Prevention Apr 1948 Medicine - Mosquitoes, Eradication "Drying Infected Soils as a Control for Malaria," F. I. Shcherbak, 1 p "Gig 1 San" No 4 Measures taken to dry some of the marshes and bogs in the Podkumka River valley to control breeding of the malaria mosquito in the Kavkaz mineral springs region. Measures also taken to lower the level of ground water. FDB 65T73	
USSR/Medicine - Hygiene and Sanitation Apr 1948 Medicine - Water Supply "Sixth Plenum of the Directors of the All-Union Scientific Research Engineering Society (VNITO) of Water Supply and Sanitary Engineering," L. S. Zinov'yeva, 2 1/2 pp "Gig 1 San" No 4 Convened in Gor'kiy 4-7 Dec 1947. Briefs proceedings and lists articles and papers presented for reading. One of the largest future tasks is to develop effective methods for purifying river waters. FDB 65T74	USSR/Medicine - Hygiene and Sanitation Apr 1948 Medicine - Nervous System "Book Reviews" 4 pp "Gig 1 San" No 4 "The Secondary Signal System," by L. A. Orbeli, is a continuation of I. P. Pavlov's work and should solve number of problems in neurology. "Reflex Variations of Adaption of Trophic Effects of the Vegetative Nervous System on the Excited Tissues of the Human Organism," by K. Kh. Kecheyev, is valuable book for hygienists. Both reviewed by I. S. Kandrov. M. Ruffel' reviews G. N. Kamenskiy's FDB 65T75	
USSR/Medicine - Hygiene and Sanitation Apr 1948 Medicine - Societies, Medical "With the Directors of the All-Union Scientific Society of Hygienists," M. S. Goromosov, 1 p "Gig 1 San" No 4 First meeting of this new society was held 21 Oct 1947. N. A. Semashko was elected chairman, and A. N. Sysin, deputy chairman. Lists those selected to the presidium of the society. Another meeting was held 12 Dec 1947 at which more members were elected to the society. On 30 Dec 1947 the Moscow Branch was established. Lists members admitted at that time. FDB 65T76	USSR/Medicine - Hygiene and Sanitation Apr 1948 (Contd) book, "Hydrological Research and Prospecting for Water Supply Sources," stating that though it contains many discrepancies it is nevertheless a valuable acquisition to the hydrologists library. V. Gorbov states that R. A. Babayants' book, "Methods and Results of Research on Municipal Wastes," is valuable asset to the sanitation technician. FDB 65T75	
USSR/Metals Mar/Apr 1948 Zinc Alloys Corrosion "Increase in the Corrosion Resistance of Zinc Plating and Zinc Alloys by Chromating," A. V. Turkovskaya, G. S. Reveko, Mem, Committee on Galvanostegy, 2 pp "Vest Inzher i Tekhn" No 2 Zinc alloys or zinc coatings both increase the resistance to corrosion. Various factors, such as humidity of the atmosphere, chemical content of the air, salt water, etc., have various effects on the degree of corrosion resistance. Best results obtained from 5-second immersion in bichromate solutions. Chromating gives zinc reddish hue. FDB 65T77	USSR/Minerals Jan 1948 Flotation "Flotability of Hard Bodies and Flotation Conformity," Z. V. Volkova, All-Union Inst of Mineral Ores, Moscow, 9 pp "Zhur Fiz Khim" Vol XXII, No 1 Studies of the scum-flotation process in conditions where flotation conformance is present and where it is absent. Studied for various dissemination curves for solid bodies. It permitted the discovery of relation between dispersion and flotation characteristics of subject bodies. Submitted 29 Apr 1947. FDB 65T78	

RESTRICTED	FDB Periodical Abstracts Scientific No 65	RESTRICTED	
USSR/Oil Oil, Reclamation Bleaching Earth "Use of Omsk Marl in the Reclamation of Used Oils," G. I. Feklisov, 2½ pp "Neft Khoz" Vol XXVI, No 5 Omsk marl, heat treated at 600° C may be used successfully in the reclaiming of used castor oil (vegetable oil) and used mineral oil of aviation grade and other types, particularly auto-tractor types. Marl occurs as high-grade bleaching earth of West Siberia.	May 1948	USSR/Petroleum Industry Heating, Industrial "Steam Coil Preheaters in Petroleum Reservoirs," V. I. Chernikin, 3 pp "Neft Khoz" Vol XXVI, No 5 Gives formulas to determine the over-all length of specific sections of the coil pipe and the total number of sections with the calculation of the thermal and hydraulic rate of the preheater.	May 1948
LC	65T79	LC	65T80
USSR/Petroleum Industry Geological Prospecting "The Formation of Petroleum Deposits and Salt-Dome Structures of the Southern Emba," V. Ya. Avrov, 6 pp "Neft Khoz" Vol XXVI, No 5 Geological structure of this area is fundamentally shown by boring and by geophysical methods of exploration conducted mainly in sections having salt-dome structures, in connection with their oil-bearing properties.	May 1948	USSR/Petroleum Industry Mining Methods "Surface Flooding in the Khorosan Area," V. G. Bogdasarov, 4½ pp "Neft Khoz" Vol XXVI, No 5 Operation in the Khorosan area will provide the first experience of flooding in new, unexploited and entirely unwatered stratum. There is to be observation and scientific analysis of the results obtained. Final work will be conducted by scientific forces of the city of Baku. This arrangement will provide material for the extensive introduction	May 1948
LC	65T81	LC	65T82
USSR/Petroleum Industry Pumps "Double-Action Upright Pumps," V. I. Dokumentov, 5 pp "Neft Khoz" Vol XXVI, No 5 Analysis of the problems: plunger diameter of double-action upright pumps; rod deformation, losses in length of plunger stroke and capacity of depth pumping equipment; loads on rocking-arm tip of oil-well pumps; balancing, amount of counterweight, and motor efficiency of oil-well pumps; the construction of double-action pumps.	May 1948	USSR/Petroleum Industry (Contd) of this highly effective procedure in the numerous petroleum areas of the Soviet Union.	May 1948
LC	65T83	LC	65T82
USSR/Petroleum Industry Pumps, Turbine "Exploitation of Oil Wells With Turbine Pumps," V. M. Shindman, 3 pp "Neft Khoz" Vol XXVI, No 5 Exploitation of oil wells with turbine pumps may in number of cases be effective substitute for compressor exploitation and electric rotary pumps, when for some reason these methods are impracticable or uneconomical.	May 1948	USSR/Petroleum Industry Drills, Oil Well "Experience in the Use of Kolonkov Chisels With Detachable Core Lifter," A. I. Ter-Grigor'yan, 4 pp "Neft Khoz" Vol XXVI, No 5 Extensive tests and practical experience have shown that the Kolonkov chisel with detachable core lifter facilitates and accelerates the Kolonkov drilling process. Although the percentage of core drawn out by the Kolonkov chisel with detachable core lifter is somewhat higher than that of other type chisels, the average percentage (20-40%) cannot be considered satisfactory.	May 1948
LC	65T84	LC	65T85

RESTRICTED	FDB Periodical Abstracts Scientific No 65	RESTRICTED
USSR/Petroleum Industry Geological Prospecting "Possible Oil- and Gas-Capacity of Armenia," S. G. Sarkisyan, 1 p "Neft Khoz" Vol XXVI, No 5 With the exception of few historical hints, no one has recorded any direct indications of oil, but there are number of circumstantial indications such as the presence of salt wells, emanation of hydrogen sulfide and efflorescence of sulfur, and occurrence of organic matter with the odor of bitumen in Mesodevonic limestones. LC 65T86	USSR/Petroleum Industry Geological Prospecting "The Permeability of Gas-Containing Strata in the West Azov Area," A. A. Khanin, 2½ pp "Neft Khoz" Vol XXVI, No 5 Khanin presents results of investigations he conducted in the Laboratory of Petrography and Stratum Physics, Central Research Institute for Gas Exploration. LC 65T87	
USSR/Petroleum Industry Petroleum - Cracking "Chemical Characteristics of Natural Inhibitors of Petroleum," N. V. Razumov, 6 pp "Neft Khoz" Vol XXVI, No 5 Ekhabinskiy benzine is distinguished by its content of natural inhibitors which give it exceptionally high stability. Inhibitors are composed of complex mixture of monatomic phenols in which chemical analysis has established the presence of methylphenols and xylenols. Author has established that the formation of phenols in the cracking process is the result of LC 65T88	USSR/Petroleum Industry Oils, Synthetic "Synthetic Oils and Lubricants (Survey)," G. V. Vinogradov, 6 pp "Neft Khoz" Vol XXVI, No 5 Important guide in development of technology and application of synthetic oils is production of oils satisfying specific, often rigid specifications for which petroleum oils and synthetic hydrocarbon compounds are not suited. These include fluorine-carbon oils, silicon oils, dual esters, etc. LC 65T89	
USSR/Petroleum Industry (Contd) hydrolytic separation of the nonvolatile phenol esters contained in crude oil. Studies stabilizing action of petroleum phenols and their fractions on benzine. LC 65T88	USSR/Petroleum Industry Bibliography "New Books" ½ p "Neft Khoz" Vol XXVI, No 5 Lists new books published and being published. Those published include "Hydrogeology of Petroleum Deposits," by V. A. Sulin, and "Low-Temperature Carbonization of Coal (Translation from the German)," by A. Tau. LC 65T90	
USSR/Petroleum Industry Gas, Natural "The Struggle With Hydrates During Exploitation of Gas Wells in the Grozneft Fields," P. K. Serobabin, 1 p "Neft Khoz" Vol XXVI, No 5 Two diagrams show the layout of gas-well equipment and heater with the operation explained in the text. LC 65T91	USSR/Physics Sound Waves Wave Propagation "Effect of Inertia Forces on the Speed of Wave Propagation in a Porous Space," E. B. Chekalyuk, 4½ pp "Neft Khoz" Vol XXVI, No 5 Author refers to article by Prof V. N. Shchelkachev. Speed of sound in given flexible medium is equal to speed of propagation of deflected waves in porous space. Speed of deflected waves of sound frequency in liquid saturating porous space is one tenth that of the speed of sound in clear LC 65T92	

FDB Periodical Abstracts Scientific No 65		RESTRICTED	
USSR/Physics Astronomy - Development	Mar/Apr 1948	USSR/Physics (Contd)	May 1948
"The Development of Soviet Astronomy," A. A. Mikhaylov, 8 pp		liquid. So-called "surface waves," in given case, can in no way be distinguished from "sound waves." Gives equation for the speed of expansion of periodic volumetric deformations in porous medium, along with formulas for the speed of deflected waves of sound frequency in liquid, speed of propagation of surface waves, etc.	
"Astron Zhur" Vol XXV, No 2			
Briefly describes Soviet achievements in astronomy for the past 30 years. Discusses Soviet contribution in the structure of the galactic system, theoretical astrophysics, meteoric astronomy, cosmogonic theory, and solar eclipses. States that observatory is being constructed on the southern slopes of the Alagez Mts (Aragats).			
FDB	65T93	LC	65T92
USSR/Physics Spectra, Absorption Helium	Mar/Apr 1948	USSR/Physics Solar Phenomena Geophysics	Mar/Apr 1948
"The Effect of Interatomic Electrical Fields on the Spectrum of Helium," N. G. Gusev, 12 pp		"Secular Variations of Solar Activity in Contemporary Times and Their Geophysical Results," M. S. Eygenson, 8 pp	
"Astron Zhur" Vol XXV, No 2		"Astron Zhur" Vol XXV, No 2	
Describes method permitting determination of the differential action of the Stark effect on equivalent absorption lines, with data taken directly from observations. Prof V. A. Ambartsumian contributed greatly with his assistance and counsel.		Greater and fuller explanation of the real nature of secular changes in solar activity in present times. Describes the nature of this phenomenon and discusses some of the geophysical results that might arise from subject phenomenon.	
FDB	65T94	FDB	65T95
USSR/Physics Refraction, Astronomical Refractometer	Mar/Apr 1948	USSR/Physics Astronomy Bibliography	Mar/Apr 1948
"A New Type of Meridian Ring," I. A. Dyukov, Astron Obs, Kazan, 5 pp		"Annotated List No 53 of Astronomical Literature Published in the USSR in the Period From December 1947 to January 1948" 7 pp	
"Astron Zhur" Vol XXV, No 2		"Astron Zhur" Vol XXV, No 2	
New instrument requires no equality of zenith distances. Thus no complex calculations are necessary before making observations. Instrument can be used effectively to study refraction anomalies and their seasonal variations. Submitted Jun 1946.		Lists 77 books published in the USSR during subject period.	
FDB	65T96	FDB	65T97
USSR/Physics Astronomy	Mar/Apr 1948	USSR/Radio Broadcasting Radio Stations	Apr 1948
"Conditions for the Prize imeni Bredikhin," S. I. Vavilov, Pres, Acad Sci USSR, Academician N. G. Bruyevich, Secy, Acad Sci USSR, 1 p		"The Struggle for the Development of Technical Operation of Radio-Broadcasting Nets," I. V. Bulygin, Chief Engr, Kiev Regional Radio-Broadcasting Network, 2 pp	
"Astron Zhur" Vol XXV, No 2		"Vest Svyazi - Electro-Svyaz'" No 4 (97)	
This is 10,000-ruble prize offered for the best work in astronomy. Last date for submission of works is 27 Nov 1948.		Briefly describes some of the technological advances made in the Kiev city and Kiev region radio-broadcasting network. Construction of 50-kw station has been begun in Kiev. Work has been started on 25-kw booster station for the municipal radio network.	
FDB	65T98	FDB	65T99

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FDB Periodical Abstracts Scientific No 65

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USSR/Radio Operation Radio Equipment "An Interesting Undertaking of the Gor'kiy Radio Operators" $\frac{1}{4}$ p "Vest Svyazi - Elektro-Svyaz'" No 4 (97) Briefly describes the organization of group of Gor'kiy technicians to carry out rapid repairs on breakdown of equipment and thus reduce the time necessary for shop repairs. Mentions members of this "emergency repair" crew who have done outstanding work.	Apr 1948	USSR/Radio Broadcasting (Contd) It is expected that more than 200 km of wire will be laid or strung in the next year. Progress is being made in the field of supplying radio service to farm communities.	Apr 1948
FDB	65T100	FDB	65T99
USSR/Radio Modulation Modulation Meters "Simple Method for Measuring Modulation Depth," Ye. P. Khmel'nitskiy, Engr, 1 p "Vest Svyazi - Elektro-Svyaz'" No 5 (98) Presents system that operates on the principles: Measurement at a high modulation frequency and the use of diode detector. Depth of modulation can be calculated on the formula $M = E/E'$, where: E is the amplitude of the fluctuating signal input and E' is the constant component of the E signal.	May 1948	USSR/Radio Receivers Radio Reception "Local Controls for a Radio Receiver," G. S. Egorov, Engr, 3 pp "Vest Svyazi - Elektro-Svyaz'" No 5 (98) With an increase in the number of radio centers in the USSR, there has been greater demand for clearer reception and transmission. Describes system that has local controls for the radio receiver, thus enabling control of the reception quality of the apparatus. Describes the receiver, audio amplifier and rectifier, volume indicator, frequency indicator, signal intensity indicator, and various auxiliary equipment for the panel.	May 1948
	65T101	FDB	65T102
USSR/Radio Stations Radio Broadcasting "The Advanced Radio Center," I. S. Kumysh, Chief, Odessa Radio Center, 2 pp "Vest Svyazi - Elektro-Svyaz'" No 5 (98) Briefly describes the history of the Odessa Radio Center which grew from one-room broadcasting station in 1923 to one of the leading radio centers in present-day USSR.	May 1948	USSR/Radio Broadcasting Radio, Wired "Wired Broadcasting in the USSR," N. L. Bezladnov, Candidate Tech Sci; B. Ya. Gertsenshteyn, Engr, 2 pp "Vest Svyazi - Elektro-Svyaz'" No 5 (98) Briefly describes development and expansion of wired broadcasting in the USSR, with some notes on the progress of USSR technology in this field.	May 1948
FDB	65T103	FDB	65T104
USSR/Radio Broadcasting Radio Towers "Development and Introduction of New Techniques in Radio Communications and Radio Broadcasting," N. N. Strel'chenko, M. A. Shkud, Engineers, 2 pp "Vest Svyazi - Elektro-Svyaz'" No 5 (98) Radio is one of the fields in the Soviet Union undergoing maximum development. At present research is conducted in lowering the cost of new equipment, in particular, radio towers. Another research project is reducing the amount of metal used in towers. Briefly describes other progress made by Soviet radio engineers and technicians.	May 1948	USSR/Radio Antenna Teletypewriters "Toward New Attainments in Radio Science and Engineering" 2 pp "Vest Svyazi - Elektro-Svyaz'" No 5 (98) The 58th anniversary of Popov's discovery of the radio receiver was 7 May 1948. At present the radio network is very important means for fulfilling the Five-Year Plan in 4 years as it reaches into all corners of the Soviet Union. Briefly presents some of the highlights in radio technology for the past 58 years. In the past year much research has been devoted to development of antennas, installation of teletypewriter apparatus on telegraph lines, etc.	May 1948
FDB	65T105	FDB	65T106